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[Continued on next page]

(54) Title: HCV RNA-DEPENDENT RNA POLYMERASE

MSMSYTWGALITPCANDESKLPINPLNSLLRHNKVVYTTSSASLRKAVTTFDMQVLDSEYDYSVLDKDKL
AASKVYTABLLTTEACDLTPPHSASRKYGFQACVDSRSLGRVNHKISVSKDLRDBETPLTPTTHAKNEVFCV
DPTGGKRAARLIVYDPLGVRCRKAALYDITQKLPQVNHGASYGFQYSAQVVEFLKAWAEKDDPMGFSYDT
RCFDSVYTERDITRESDIYQACSLPQKARTVHSLREPLVGGPMTHSKGQCYRRCASGVLTSMGNTITC
YKATARAAGLRPPFLVCGDDVAVRSDGVSDRALPAFTIAMNYSAPGDAQCQYDLELLITSCSN
VSVADSGRRYYLTREDPTPLARAWETVRHSPVNSLGNLIQYAPTIWVRMVMTHFESILQSQEQLKAL
DPMYGVYTSITPDLPLIQRLEGDAFTLCQYSEHLEVRAGALAKLGVPLRAWHRARAVRAKLTAGGK
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A

MSMSYTWGALITPCANDESKLPINPLNSLLRHNKVVYTTSSASLRKAVTTFDMQVLDSEYDYSVLDKDKL
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DPTGGKRAARLIVYDPLGVRCRKAALYDITQKLPQVNHGASYGFQYSAQVVEFLKAWAEKDDPMGFSYDT
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DPMYGVYTSITPDLPLIQRLEGDAFTLCQYSEHLEVRAGALAKLGVPLRAWHRARAVRAKLTAGGK
AKICGKYLFWAVKTKLKLTPPLPAARLDSGWTTVGSGGDIYSVSHARF

B

MSMSYTWGALITPCANDESKLPINPLNSLLRHNKVVYTTSSASLRKAVTTFDMQVLDSEYDYSVLDKDKL
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RCFDSVYTERDITRESDIYQACSLPQKARTVHSLREPLVGGPMTHSKGQCYRRCASGVLTSMGNTITC
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VSVADSGRRYYLTREDPTPLARAWETVRHSPVNSLGNLIQYAPTIWVRMVMTHFESILQSQEQLKAL
DPMYGVYTSITPDLPLIQRLEGDAFTLCQYSEHLEVRAGALAKLGVPLRAWHRARAVRAKLTAGGK
AKICGKYLFWAVKTKLKLTPPLPAARLDSGWTTVGSGGDIYSVSHARF

C

MSMSYTWGALITPCANDESKLPINPLNSLLRHNKVVYTTSSASLRKAVTTFDMQVLDSEYDYSVLDKDKL
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RCFDSVYTERDITRESDIYQACSLPQKARTVHSLREPLVGGPMTHSKGQCYRRCASGVLTSMGNTITC
YKATARAAGLRPPFLVCGDDVAVRSDGVSDRALPAFTIAMNYSAPGDAQCQYDLELLITSCSN
VSVADSGRRYYLTREDPTPLARAWETVRHSPVNSLGNLIQYAPTIWVRMVMTHFESILQSQEQLKAL
DPMYGVYTSITPDLPLIQRLEGDAFTLCQYSEHLEVRAGALAKLGVPLRAWHRARAVRAKLTAGGK
AKICGKYLFWAVKTKLKLTPPLPAARLDSGWTTVGSGGDIYSVSHARF

D

MSMSYTWGALITPCANDESKLPINPLNSLLRHNKVVYTTSSASLRKAVTTFDMQVLDSEYDYSVLDKDKL
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DPTGGKRAARLIVYDPLGVRCRKAALYDITQKLPQVNHGASYGFQYSAQVVEFLKAWAEKDDPMGFSYDT
RCFDSVYTERDITRESDIYQACSLPQKARTVHSLREPLVGGPMTHSKGQCYRRCASGVLTSMGNTITC
YKATARAAGLRPPFLVCGDDVAVRSDGVSDRALPAFTIAMNYSAPGDAQCQYDLELLITSCSN
VSVADSGRRYYLTREDPTPLARAWETVRHSPVNSLGNLIQYAPTIWVRMVMTHFESILQSQEQLKAL
DPMYGVYTSITPDLPLIQRLEGDAFTLCQYSEHLEVRAGALAKLGVPLRAWHRARAVRAKLTAGGK
AKICGKYLFWAVKTKLKLTPPLPAARLDSGWTTVGSGGDIYSVSHARF

E

(57) Abstract: The present invention features NS5B polypeptides from different clinically important HCV genotypes. The polypeptides can be used individually, or as part of a panel of RNA-dependent RNA polymerases, to evaluate the effectiveness of a compound to inhibit NS5B activity.

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